### 1.5 ANGLES

## Name each of the following.

1. The angle on the right: $\qquad$
2. The sides of the angle: $\qquad$

3. The vertex of the angle: $\qquad$
Refer to the figure below to answer each question.
4. Name $\angle 1$ : $\qquad$
5. Name $\angle 2$ : $\qquad$
6. Name $\angle 3$ : $\qquad$
7. Classify $\angle 1$ : $\qquad$
8. Classify $\angle 2$ : $\qquad$
9. Classify $\angle 3$ : $\qquad$
10. Classify $\angle \mathrm{ABD}$ : $\qquad$
11. Classify $\angle \mathrm{ABF}$ : $\qquad$
Use the Angle Addition Postulate to find the value of ' $x$ ' and the measure of the angle indicated for each of the following problems.
12. $m \angle \mathrm{SXT}=(4 x+1)^{\circ}, m \angle \mathrm{QXS}=(2 x-2)^{\circ}$, and $m \angle Q X T=125^{\circ}$. Find the value of ' $x$ ' and $m \angle Q X S$.

$\qquad$
$m \angle \mathrm{QXS}=$ $\qquad$
13. $m \angle \mathrm{RXQ}=(x+15)^{\circ}, m \angle \mathrm{RXS}=(5 x-7)^{\circ}$,
and $m \angle \mathrm{QXS}=(3 x+5)^{\circ}$. Find the value of ' $x$ ' and $m \angle \mathrm{RXS}$.

$x=$ $\qquad$
$m \angle \mathrm{RXS}=$ $\qquad$
14. $m \angle \mathrm{PXQ}=(8 x-3)^{\circ}, m \angle \mathrm{PXS}=(10 x+30)^{\circ}$.

Find the value of ' $x$ ' and $m \angle Q X S$.

$x=$ $\qquad$
$m \angle \mathrm{QXS}=$ $\qquad$
Given that $\overrightarrow{\mathrm{BE}}$ bisects $\angle \mathrm{ABD}$ below, find each of the following.
15. If $m \angle \mathrm{ABE}=(6 x+2)^{\circ}$ and $m \angle \mathrm{DBE}=(8 x-14)^{\circ}$, find $m \angle \mathrm{ABE}$.
$m \angle \mathrm{ABE}=$ $\qquad$

16. If $m \angle \mathrm{ABD}=(22 n-11)^{\circ}$ and $m \angle \mathrm{ABE}=(12 n-8)^{\circ}$, find $m \angle \mathrm{EBD}$.
$\qquad$

REVIEW
Answer each of the following review questions.
17. Find the midpoint of 5 and -4 .
$M=$ $\qquad$
18. G is between F and H . If $\mathrm{GH}=6$ and $\mathrm{FG}=8 x+2$, and $\mathrm{FH}=16$, find FG .
$F G=$ $\qquad$
19. What is the distance between 10 and -6 ?
$d=$

